

## **Reliability and validity of Champion's Health Belief Model Scale for breast cancer screening among Malaysian women.**

### **ABSTRACT**

**Introduction:** Breast cancer is the leading cause of cancer deaths in Malaysian women, and the use of breast self-examination (BSE), clinical breast examination (CBE) and mammography remain low in Malaysia. Therefore, there is a need to develop a valid and reliable tool to measure the beliefs that influence breast cancer screening practices. The Champion's Health Belief Model Scale (CHBMS) is a valid and reliable tool to measure beliefs about breast cancer and screening methods in the Western culture. The purpose of this study was to translate the use of CHBMS into the Malaysian context and validate the scale among Malaysian women. **Methods:** A random sample of 425 women teachers was taken from 24 secondary schools in Selangor state, Malaysia. The CHBMS was translated into the Malay language, validated by an expert's panel, back translated, and pretested. Analyses included descriptive statistics of all the study variables, reliability estimates, and construct validity using factor analysis. **Results:** The mean age of the respondents was 37.2 (standard deviation 7.1) years. Factor analysis yielded ten factors for BSE with eigen-value greater than 1 (four factors more than the original): confidence 1 (ability to differentiate normal and abnormal changes in the breasts), barriers to BSE, susceptibility for breast cancer, benefits of BSE, health motivation 1 (general health), seriousness 1 (fear of breast cancer), confidence 2 (ability to detect size of lumps), seriousness 2 (fear of long-term effects of breast cancer), health motivation 2 (preventive health practice), and confidence 3 (ability to perform BSE correctly). For CBE and mammography scales, seven factors each were identified. Factors for CBE scale include susceptibility, health motivation 1, benefits of CBE, seriousness 1, barriers of CBE, seriousness 2 and health motivation 2. For mammography the scale includes benefits of mammography, susceptibility, health motivation 1, seriousness 1, barriers to mammography seriousness 2 and health motivation 2. Cronbach's alpha reliability coefficients ranged from 0.774 to 0.939 for the subscales. **Conclusion:** The translated version of the CHBMS was found to be a valid and reliable tool for use with Malaysian women. It can be used easily to evaluate the health beliefs about breast cancer, BSE, CBE and mammography and for planning interventions. For greater applicability, it is recommended that this tool be tested among ethnically diverse populations.

**Keyword:** Breast cancer; Breast cancer screening; Breast self-examination; Champion health belief model; Clinical breast examination; Health belief model.